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	SECOND LETTER REPORT ON EVALUATION	
	(16 December 1965 to 13 January 1966)	
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	13 January 1966	
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Second Letter Report on Evaluation (U)

I. Work for Reporting Period

The work during the past month can be broken down into two problem areas. In the first, the construction of the cadmium sulfide detector unit and associated circuitry has continued. This will be used to measure directly the degree of coherence in the object plane by measuring the visibility of the fringes in the suitable interference experiment. The second problem is a theoretical analysis of the appropriate input targets and techniques for evaluation. Recently completed calculations of the partially coherent images of sinusoidal objects and edge objects are available and the applicability of using these to measure the degree of coherence is being investigated.

II. Work for Next Period

Efforts will be directed toward completing construction of the double slit interferometer and toward calculating and measuring the degree of coherence in the object plane for both the Na-arc and the He-Ne laser sources. We will begin to evaluate the images of low contrast edges since these will be linear in intensity even for coherent illumination.

III. Visits to Contractor

During the reporting period no visits were made to the contractor.

IV. Changes in Personnel

The fo	llowing	personnel	have	been	added	to	the	contract	t sta	tt:
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